

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,334	11/30/2001	Masahiro Sato	NGB-106-A 4987	
7:	590 05/18/2004	EXAMINER		
	man & Associates, P.C.	CULBRETH, ERIC D		
24101 Novi Ro Novi, MI 483			ART UNIT	PAPER NUMBER
- · · · · · · · · · · · · · · · · · · ·			3616	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application	on No.	Applicant(s)						
Office Action Summary		09/997,33	4	SATO ET AL.						
		Examiner		Art Unit						
		Eric D Cul	breth	3616						
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply										
THE M/ - Extension after SI) - If the period of the period	RTENED STATUTORY PERIOD FOR RIALING DATE OF THIS COMMUNICATION of time may be available under the provisions of 37 CF (6) MONTHS from the mailing date of this communication riod for reply specified above is less than thirty (30) days, brief of reply is specified above, the maximum statutory provided for reply within the set or extended period for reply will, by styreceived by the Office later than three months after the patent term adjustment. See 37 CFR 1.704(b).	ON. FR 1.136(a). In no eve on. a reply within the statu period will apply and wil statute, cause the appli	nt, however, may a reply be t tory minimum of thirty (30) da I expire SIX (6) MONTHS fro cation to become ABANDON	timely filed ays will be considered timely m the mailing date of this co IED (35 U.S.C. § 133).						
Status										
1)⊠ R	Responsive to communication(s) filed on 12 March 2004.									
	2a)⊠ This action is FINAL . 2b)□ This action is non-final.									
3)□ S	ince this application is in condition for all	lowance except t	for formal matters, p	rosecution as to the	merits is					
С	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.									
Disposition	n of Claims									
4)⊠ C	. 4)⊠ Claim(s) <u>1-3,5-9 and 12-23</u> is/are pending in the application.									
	4a) Of the above daim(s) is/are withdrawn from consideration.									
5)□ C	5) Claim(s) is/are allowed.									
	laim(s) <u>1-3,5-9 and 12-23</u> is/are rejected	I.								
	laim(s) is/are objected to.									
8)∐ C	laim(s) are subject to restriction a	and/or election re	equirement.							
Application	n Papers									
9)[] Tł	ne specification is objected to by the Exa	miner.								
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.										
А	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).									
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).										
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.										
Priority un	der 35 U.S.C. § 119									
	cknowledgment is made of a claim for for All b)☐ Some * c)☐ None of:	reign priority und	der 35 U.S.C. § 119(a)-(d) or (f).						
1.☐ Certified copies of the priority documents have been received.										
2. Certified copies of the priority documents have been received in Application No										
3. Copies of the certified copies of the priority documents have been received in this National Stage										
application from the International Bureau (PCT Rule 17.2(a)).										
* Se	e the attached detailed Office action for a	a list of the certif	ied copies not receiv	ved.						
Ý-			0.7-1							
Attachment(s			4) [] I=4i 0	(DTO 442)						
	of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (PTO-948	8)	4) Interview Summar Paper No(s)/Mail I	Date						
	tion Disclosure Statement(s) (PTO-1449 or PTO/S lo(s)/Mail Date	B/08)	5) Notice of Informal 6) Other:	Patent Application (PTO	-152)					
S. Patent and Trad			-,							

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: There is no clear antecedent basis for "the gas flow portion", as a gas flow path portion is recited elsewhere in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

- 1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 2. Claims 1-3, 7, and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiota et al (of record).

Shiota et al discloses an air bag folded and housed in an instrument panel (column 1, lines 15-25) and inflated by an inflator 16 when the vehicle collides (column 1, lines 15-25). As seen in Figure 2, gas from the generator flows into an opening portion of the air bag (at the left side of the bag in Figure 2). A gas flow path extends continuously from the opening portion above and below cavity 20, and the gas flow path extends continuously to an occupant restraint portion at the right side of Figure 2. Therefore, gas flows continuously from the opening portion to the occupant restraint portion through the gas flow path portion. Cloth 108 is a penetrating portion extending through the gas flow portion (claim 1).

Regarding claim 2, the penetrating portion 108 divides the gas flow path portion into two flow paths at least.

Art Unit: 3616

Regarding claim 7, as functionally recited, penetrating portion 108 reduces an opening area of the gas flow path portion.

In regard to claims 16-17, Shiota et al teaches the penetrating portion being sealed (note Shiota et al, column 3, lines 1-4, where the ends of cloth 108 are both seamed to openings 106, 107 in side panels 104, 105, and also note column 4, lines 15-21, where Shiota et al teaches that vent holes 24, 24a may be disposed some other place than facing cavities 20, 20a and hence some other place than on penetrating portion 108, leaving the penetrating portion sealed.

Regarding claim 3, Shiota et al's cloth 108 is also a "joint portion" as broadly recited in that it is a portion joined by sewing to the side walls 104, 105 of the air bag 10. As functionally recited in claim 18, the penetrating portion extends through the gas flow path portion and restricts the volume of air that flows therethrough. As discussed previously (claim 19), the joint portion 108 would reduce the volume of the air bag and connects opposing sections of the gas flow portion inasmuch as applicant's disclosed invention (i.e., it connects those portions of the side walls 104, 105 forming the gas flow portion by sewing).

Regarding the limitations in claims 1, 3 and 17 that the penetrating portion/joint portion is only in the gas flow path portion attached to or extending continuously from the opening portion, Shiota et al meets the limitation as functionally recited. Note Figure 2, where the arrows indicating gas flow go from the bag opening to the other side of cloth 108, indicating that a gas flow portion exists from the opening to the other side of the cloth 108, and hence that the cloth 108 is only in the gas flow portion.

Art Unit: 3616

3. Claims 3, 5 and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Maruyama (of record).

Maruyama discloses an air bag in a folded state housed in an instrument panel inflated by inflator 16 when the vehicle collides (column 1, lines 15-25), the air bag having an opening portion attached to container 12 receiving gas from inflator 16, a gas flow path portion 22, 24 extending continuously from the opening portion, and an occupant restraint portion at 23. The occupant restraint portion 23 extends continuously from the gas flow portion, wherein the gas flows from the opening portion to the occupant restraint portion through the gas flow path portion. At least one joint portion 25 is located within the air bag, the joint portion dividing the gas flow path portion into two or more paths 22, 24 for flowing the gas from the opening portion to the occupant restraint portion through the gas flow portion (claim 3). The joint portion is formed by sewing parts 20a, 10 of the air bag portions forming the gas flow portions together (note the first two lines of the abstract, where the air bag is formed of a panel and guide member (20))(claim 5).

Maruyama's bag has a plurality of joint portions (i.e., one on either side of pieces 20a and 20b), the joint portion(s) reduce an area of the gas flow path portion (by holding pieces 20a, 20b in place), and the joint portions in holding pieces 20a, 20b in place divide the gas flow path portion into multiple flow paths 22, 24 (claims 12-15).

Regarding claim 3, as with Shiota et al above, in view of the broad recitation that the joint portion is located only in the gas flow path portion, as indicated in Figure 2 of Maruyama, the joint portions along panel 20 are only in a gas flow portion continuous from the bag opening as indicated by the arrows from the bag opening to the other side of panel 20.

Art Unit: 3616

Claim Rejections - 35 USC § 103

- 4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 5. Claims 6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shiota et al to include a plurality of penetrating portions such as cylindrical cloth 108 in order to reduce the volume necessary to fill the air bag (column 4, lines 23-33) using an obvious design variant (case law (St. Regis Paper Co. v Bemis Co. Inc., 193 USPQ 8, 11 (7th Cir. 1977) holds that it is obvious to duplicate parts (i.e., use more than one cylindrical cloth) for multiplied effect (to require even less gas to inflate the bag)). The penetrating portions in the obvious design variant would reduce an opening area of the gas flow path portion as functionally recited.

6. Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese 4-135940 (of record) in view of Maruyama.

Japanese '940 discloses an opening 2, 2 in a bag that is folded (Figure 1) into which gas from an inflator 3 flows. A gas flow path portion extends continuously from the opening portion at 2, 2 and an occupant restraint portion (the remote half of bag body 1) extends continuously from the gas flow path portion. The portion of the bag between the openings at 2, 2 is both a

Art Unit: 3616

penetrating portion only in the gas flow path portion between the opening portion and the remote half of the bag forming the occupant protection portion and the joint portion dividing the gas flow path portion into two or more paths for flowing the gas from the opening portion to the occupant restraint portion and located only in the gas flow path portion (claims 1, 3, and 17 from which claims 20-23 depend). However, regarding claims 1, 3 and 17, Japanese '940 does not teach the folded air bag in an instrument panel. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Japanese '940 to include the bag in an instrument panel as taught by Maruyama's instrument panel 18 in order to use to bag to protect a vehicle occupant. The bag would folded in the instrument panel in keeping with Japanese '940's Figure 1. Regarding claims 20-23, in the combination the joint portion between openings 2, 2 directly connects upper and lower surfaces of the gas flow portion of the air bag (i.e., as the bag is deployed above the instrument panel in Maruyama's Figure 1 and the openings of Japanese '940 are at the end parts 2 along sides of inflator 3 in the English abstract, in the combination the portion between the openings at 2 would connect the top and bottom of the bag in the gas flow path portion area). And the gas flow path portion in the combination, being adjacent to the inflator, would be above an upper surface of the instrument panel to substantially cover the upper surface inasmuch as applicant's disclosure when the bag is inflated.

Response to Arguments

7. Applicant's arguments filed 3/12/04 have been fully considered but they are not persuasive.

Art Unit: 3616

On pages 8-10 of the arguments, the applicant remarks that Shiota et al's cloth 108 is not "only in the gas flow path portion" of the bag extending continuously from the gas inlet opening to the occupant restraint portion, that Shiota et al's cloth is in the occupant restraint portion, and that the examiner's interpretation of the gas flow portion would include the entire bag.

As noted in MPEP 2111, during patent examination, claims are given their broadest reasonable interpretation consistent with the specification. It is proper to use the specification to interpret what the applicant meant by a word or phrase recited in the claim. However, it is not proper to read limitations appearing in the specification into the claim when these limitations are not recited in the claim. Where an applicant chooses to be his or her own lexicographer and defines terms with special meanings, he or she must set out special definition explicitly and with "reasonable clarity, deliberateness, and pecision" in the disclosure to give one of ordinary skill in the art notice of the change.

Contrary to applicant's arguments, Shiota et al's cloth 108 is clearly only in a gas flow path portion of the bag as indicated by the arrows in Figure 2 as broadly interpreted, and the gas flow path portion extends continuously in Figure 2 of Shiota et al from the opening to "an occupant restraint portion" (i.e., as broadly recited, it is "a" portion that restrains an occupant) on the right side of the cloth 108 in Figure 2. Under the examiner's interpretation, the entire bag is not the gas flow path portion, as the examiner has just noted that there is an occupant restraint portion to the right of the cloth with the claimed gas flow path portion in Figure 2. (It is noted, for that matter, that even the applicant's entire bag is "an occupant restraint portion", as the entire bag is pressurized, even the gas flow path portion adjacent the inflator, when a passenger falls into the bag, while the entire bag is also "a gas flow path portion" as gas flows throughout

Art Unit: 3616

the entire bag, even the occupant restraint portion, during inflation). Applicant's claim language is so broad that it fails to define over Shiota et al.

On pages 10-11, the applicant notes that the <u>St. Regis</u> case law is "old" and not decided by the CCPA or CAFC, and that <u>St. Regis</u> is concerned with whether it would have been obvious to include multiple layers of bags where it is conventionally known in the prior art to use multiple layers to achieve the effect of many bags within one. However, the applicant's definition of "old" is not defined or standardized, and no source invalidating the cited case law or courts making that law has been given. Moreover, <u>St. Regis</u> is concerned with whether it is novel to add multiple layers to an existing bag: "We hold that it did not do so. While the addition of multiple plies to the concept of the Poppe bag undoubtedly made it stronger and even may have been necessary to make this type of bag commercially feasible, it is not the type of innovation for which a patent monopoly is to be granted. It is difficult to conceive of a more obvious method of strengthening a certain type of bag than putting one bag inside another". Hence, the cited law would teach that it is obvious to add duplicate parts to multiply effect, whether the duplicate parts are added to one part or a multitude of already existing parts.

On pages 11-13, the applicant argues that Maruyama does not meet the claim language in view of applicant's disclosure. But as noted above with Shiota et al above, the claim language is so broad that Maruyama meets the broad recitation of a gas flow path portion, occupant restraint portion, etc.

8. Applicant's arguments with respect to claims 20-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D Culbreth whose telephone number is 703/308-0360. The examiner can normally be reached on Monday-Thursday, 9:30-7:00 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3616

Page 10

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric D Culbreth Primary Examiner Art Unit 3616

Eic Calloth

ec